



psb
SPEAKERS

PSB Platinum Series

o w n e r ' s m a n u a l

Congratulations on choosing PSB Platinum Series speakers. Please take the time to read the instructions in this guide, as they will help you enjoy the full potential of your loudspeakers in any stereo or multichannel home theater application.

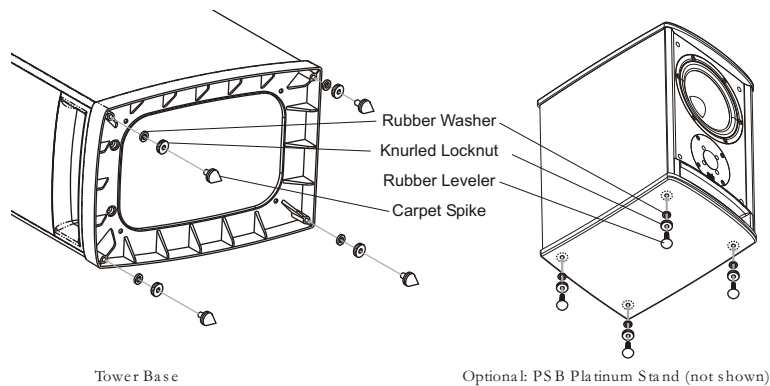
Warranty Registration

We recommend you take a few moments now to register your warranty, preferably on-line at psbspeakers.com/w/Warranty.html or via the enclosed registration form so that we will be able to serve you better in the future.

Unpacking

The packing materials of your PSB Platinum Series speakers are designed to protect them from damage during shipping. Retain the packaging in case the need arises to transport the speakers in the future.

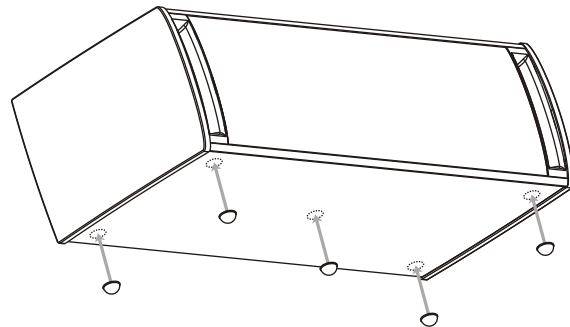
Adjusting Rubber Levelers and Spikes (Tower and Monitor Speakers)



Attach the supplied spikes or rubber levelers to the bottom of the speaker as shown in the diagram at left. On carpets, position the speakers and adjust spikes to the desired height (higher for thicker carpet) and hand tighten the knurled locknuts against the bottom of the cabinet.

Adjusting Rubber Bumpers (For Center Channel Models)

Attach supplied rubber bumpers to the bottom of the speaker as shown in the diagram. For positioning of speakers on top of a smaller surface (ie. top of TV cabinet) locate the bumpers on the bottom such that they all touch and support the speaker on the smaller surface. Bumpers across the rear of the cabinet can be left off to tilt the speaker slightly upward if located on a shelf below a screen. Bumpers across the front can be left off to slightly tilt the speaker down if located above a screen.



Wall Mounting S2 Surrounds

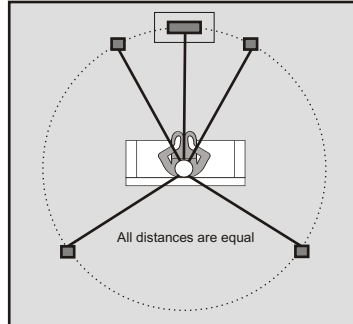
Attach supplied rubber bumpers to the lower rear panel of each speaker. Refer to the supplied template/instruction sheet to accurately and securely position the mounting hardware on the wall. The middle of the three mounting screws should be screwed firmly into a wall stud. The outer two screws should then use an appropriate dry-wall mounting fastener. If it is not possible to mount to a stud then proper drywall mounting anchors **must** be used. There are simple expanding plastic sleeves commonly used for mounting fixtures to dry-wall. **These are not adequate and must not be used.** Rather, choose one of the wide expanding, permanently captured style of wall anchors designed for mounting heavier loads to dry-wall.

Note: If you don't feel confident in such matters we strongly recommend that you have your dealer or a professional contractor assist you in the mounting of your surround speakers. The installer is responsible for the correct selection and use of mounting hardware (available through local hardware retailers) that will ensure the proper and safe wall-mounting of the speakers.

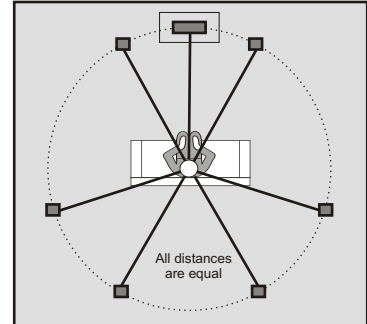
Speaker Placement — Maximizing Your Enjoyment

Proper loudspeaker placement is an essential ingredient to getting the best sound from your high performance stereo, multi-channel audio or home theater system. The goal is to reproduce faithfully the audio soundtrack the movie director or music producer created without calling any attention to the speakers themselves.

Fortunately, it is a straightforward process that just takes some care and patience. Should you have a large room and the possibility to arrange the room as you wish or if you are designing a room for home entertainment refer to the diagrams shown here for ideal speaker placement. In this arrangement all speakers (except the subwoofer) are placed the same distance from the listener. In most cases, you'll need to adapt your speaker placement to a given room that's less than ideal. Here are a few speaker placement basics to keep in mind as you get started:



5.1 surround speaker placement



6.1/7.1 surround speaker placement

- A. You will generally get the best imaging and other spatial qualities if your front left/right speakers and your usual seating position form an almost equilateral triangle, with the speakers not quite as far apart from each other as they are from you. If you must sit closer to one speaker than the other, use the Balance control on your electronics (or the individual level controls on home theater channels) to give the more distant speaker a balancing boost in volume.
- B. Our tower speakers are designed for optimal listening from the seated to standing position. For our monitors we offer accessory speaker stands to achieve the right height if you are not using existing shelves or furniture.
- C. The best high-frequency dispersion, producing the widest “sweet spot” in which you and others can sit and enjoy optimum high-frequency definition, will result when your main speaker enclosures are positioned vertically rather than horizontally. If you are placing your monitors horizontally, the speakers will still perform very well, but the seating area where you will enjoy optimum sound will become narrower. We suggest you position the tweeters to the outside away from the center line. You may prefer to tilt the speakers towards ear level using the adjustable levelers.
- D. If you sit equally distant from both speakers, angling the speakers inward (“toeing them in”) about 5 to 10 degrees usually produces the best convergence of high frequencies where you listen. Different listening positions may require different toe-in.
- E. Surround speaker placement is covered in Section 4. Beyond these basics, experiment with positioning for optimum performance. Please read the placement guidelines that follow. They are about the speakers, the room, and you.

1. The Speakers in Relation to Room Boundaries

The position of your speakers with respect to the walls, floor, and ceiling of your listening room will often affect their sound in major ways.

- A. The closer you place speakers to the boundary surfaces of your room, the greater the proportion of bass in their overall sound. This is due to the enclosing, “focusing” effects of nearby surfaces on longer-wavelength (lower) frequencies. Positioning the speakers near the intersection of two surfaces (wall and wall, wall and floor, or wall and ceiling) will produce more apparent bass than placement near a single surface. The greatest proportion of bass is delivered by placement near three intersecting surfaces—in a room corner near the floor or ceiling, where the convergence of the two walls and the floor/ceiling produces an amplifying effect that is a bit like that of a megaphone. And the least bass comes from placing a speaker away from all boundaries. Your own tastes should decide what proportion of bass response seems right in your room.
- B. The combination of the three dimensions of your room generally will produce at least three points in the room where the frequency response you experience related to a given position (of either the speaker or you) will either greatly increase or almost disappear. The most obvious effects are on low frequencies, but mid-frequency effects, while usually subtler, are also often present. Keep in mind, then, that very small changes in positioning (of the speakers or you) may produce major or subtle changes.
- C. Distances of speakers from the walls can make great differences in the number, strength, and particular frequencies of secondary reflections—changing frequency-balance, sonic spaciousness, and definition. Most listeners prefer their speakers at least a few inches from all walls, but the choice is yours to determine by listening.

2. You in Relation to the Speakers

Where you sit in relation to your speakers obviously makes a difference too. The proportions of the particular triangle formed by your speakers and you matter. (You may need to send more power to the more distant speaker to compensate if you get much further from one speaker than the other.) The overall distances involved also matter. As you get further from the speakers, more sound reflected from your room’s surfaces (in contrast to the sound coming directly from the speakers) reaches your ears, and the original spatial relationships in a recording are changed as your room “takes over.” Sometimes the result is a mellower, more “integrated” sound. Other times, it’s a more strident or annoyingly “echoey”—or other—quality. Once again, the particular dimensions of your room play a part. And depending on what seems more realistic and/or enjoyable to your ears, you may choose to sit at a great distance or have close-up, “near-field” sound. Keep in mind that the right “toe-in,” the right speaker height, and a reasonably symmetrical distance from the speakers all tend to work together to deliver the best high-frequency definition and imaging.

3. You in Relation to Room Boundaries

Changing your own position with respect to a room’s boundaries may also bring a big effect, sometimes for a small change. Getting further from the wall behind you may make sound more precise and localized. Getting closer may make sound more “mellow” and integrated. Coming too close—to back wall, side wall, or (especially) a corner—you may experience a major peak or cancellation of a certain band of frequencies. It depends on factors we can’t cover fully here but do get into on our web site.

Remember too, with respect to your own positioning, that it may—or may not—be easier to change your own seating location than to move your speakers. As with so much else in life, the one certain rule is that you shouldn’t fix, or worry about, what isn’t broken (audibly in this case), especially if it means moving heavy furniture.

As you consider the three relationships we have outlined, the idea is to manipulate whatever variable is easiest and most productive for improving your listening experience. Be sure to base your judgements on listening to a good variety of recordings of vocals, and acoustic instruments, soloists, different movies and musical instruments to most easily recognize tonal balance shifts.

4. Positioning Surround Speakers

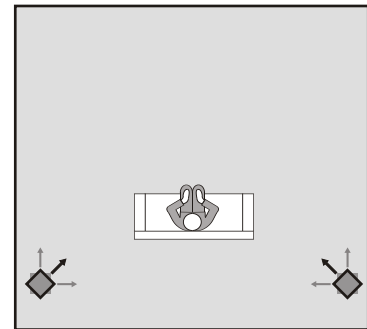
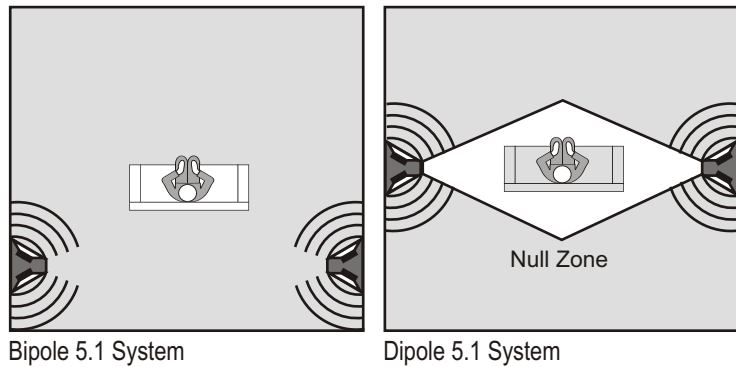
We are often asked about what kind of surround speakers are best: dipole, bipole, or monopole (direct-radiator). Placement, room acoustics, and other factors affect the sonic realism of movies and multi-channel audio at least as much as the radiating characteristics of a speaker. Therefore, we do not make specific recommendations but rather suggest you discuss the best solution for your particular needs with your authorized PSB audio/video specialty retailer or visit our Web site. Bipole (speakers in-phase) or direct radiating surrounds placed slightly BEHIND the listening position can offer an exceptionally convincing diffuse soundfield without calling any attention to the surround speakers themselves. It should be noted that in the alternative dipole surround configuration the two baffles of each surround speaker are out-of-phase with each other creating a “null” or dead zone of sound in the area along the 90-degree axis of the speaker. **DIPOLE SURROUNDS MUST BE PLACED ON THE SIDE WALLS DIRECTLY BESIDE THE LISTENING POSITION.** The effect is lost as soon as you

move outside the “null”. All PSB Platinum Series speakers are timbre matched (have similar tonal characteristics) for easy mix and match home theater system flexibility and ultimate performance. Most surround sound is meant more to create greater depth and overall ambience than to localize effects as coming from a particular spot. How much you prefer these localized effects vs. overall sonic depth and diffusion is up to your listening preferences. If you are listening to multi-channel music from DVD-Audio or SACD,

you may want the maximum localization of instruments. However, for most home theater applications a diffuse soundfield might be preferred. You can locate and aim your surround speakers to produce the effects you prefer, whether precisely pinpointed or pleasantly diffused. For example, you may choose to position monitors behind your listening position on stands at ear height as shown in the diagram at right and, experiment with speaker positioning relation to the listener to obtain the level of direct versus diffuse sound that you prefer.

Most people find it best to mount dedicated surround speakers like our S2 Surrounds on the side walls slightly behind the prime listening position and two feet above ear height when seated (this typically places the bottom of the speaker about 5 feet above the floor.) The surround speakers can also be mounted at ceiling level or on floor stands if this is preferred but remember to follow the wiring requirements outlined in Surround Speaker Connections below. Also, for those adding a rear center channel for 6.1 and 7.1 systems, the S2 offers several rear center surround solutions. The S2 Surround with both dual crossovers and speaker inputs, provides exceptional wiring and placement possibilities for achieving a diffuse soundstage. For example, the S2's Tri-mode Surround Speaker Placement™ (TSSP) design allows for easy bipole or dipole wiring. In addition, it offers the possibility of using one pair of S2 for 6.1/7.1 systems by wiring the forward firing baffles for the side surround channels and the rear firing baffles for the rear center surrounds. The illustrations below show several 6.1/7.1 speaker placement options utilizing two, three or four S2 surrounds. Your PSB audio/video specialist will be able to recommend the best placement options for your particular needs and budget.

Note that as you move from Figure 1 through to Figure 3 power handling improves, therefore the ability to produce wider dynamic range increases. Also positioning additional S2 Surrounds allows for a more convincing, enveloping surround soundfield.



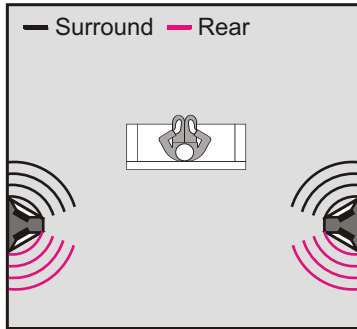


Figure 1
6.1/7.1 System using
two S2 Surrounds

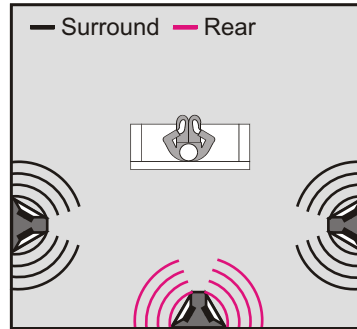


Figure 2
6.1/7.1 System using
three S2 Surrounds

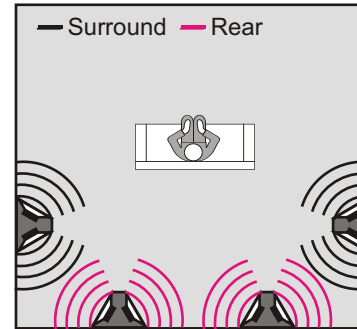


Figure 3
6.1/7.1 System using
four S2 Surrounds

Connections

Important: Always turn off your electronic equipment before connecting speakers.

Selecting Speaker Wire

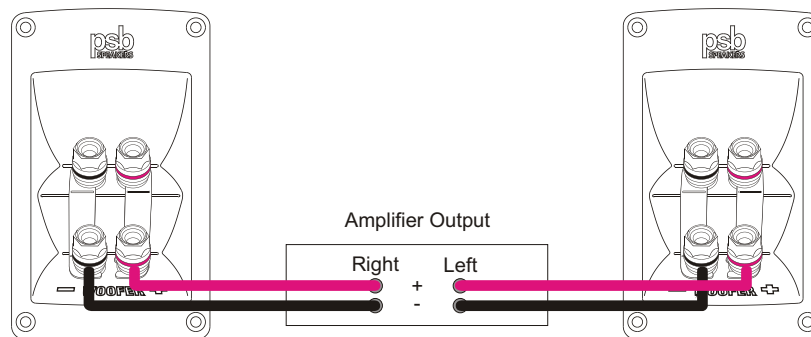
We recommend the following gauge of standard two-conductor wire for the wiring distances specified; if you prefer, you can use heavier (lower-gauge) wire.

You may wish to audition and compare the performance of some of the specialty audio interconnects and speaker cable available from your dealer.

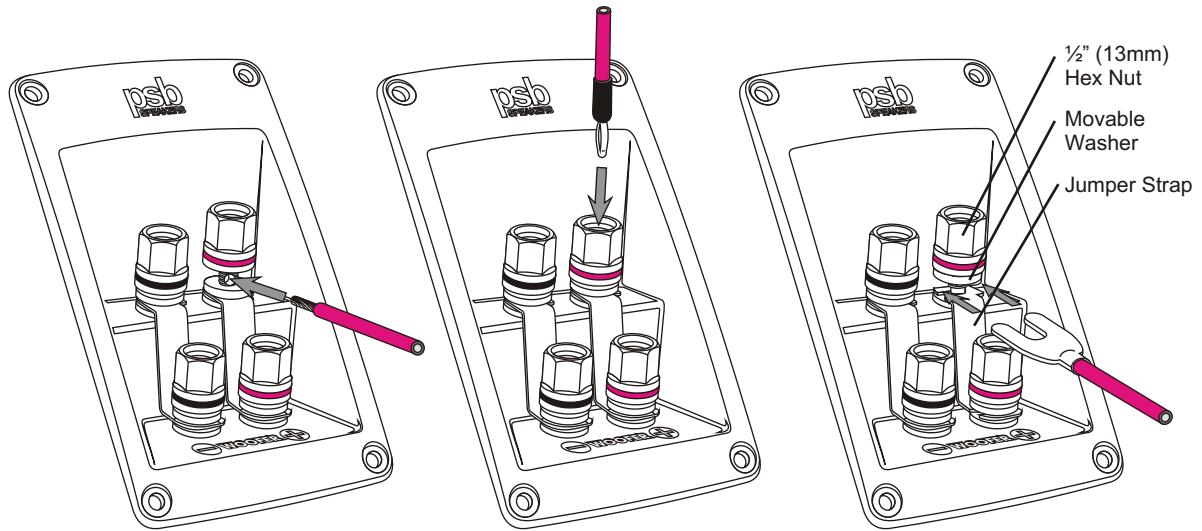
Under 25 ft (7.5 m):	16-gauge – (1.3 mm)
25-50 ft (15 m):	14-gauge – (1.6 mm)
Over 50 ft (30 m):	12-gauge – (2.0 mm)

Conventional Wiring

Connect speakers identically to your amplifier or receiver on each channel Red amp/receiver terminal to Red speaker terminal, Black to Black. This will ensure that the diaphragms of the speakers on both channels move forward and backward together (“in-phase”), rather than in opposition (“out-of-phase”). In-phase connection provides maximum clarity and bass, while out-of-phase connection results in frequency cancellations and produces thinner and less distinct sound—with less bass, vague vocal quality, and no solid center image. To help ensure the proper connection, the two separate conducting wires in a standard two-conductor speaker cable are coded in one way or another to be distinguishable from each other. (The jacket of one wire may be ribbed or marked with “+” signs, or one wire under the insulation may be a different color from the other.) Use this wire-coding, together with the amp/receiver and speaker color-coding, to be sure you are connecting the same wire of a given pair to a like-coded terminal at both ends of your connection. Assure all wiring terminals are tightened firmly but be careful not to overtighten and damage the connectors.



Speaker Connector Options



Bare Wire Connection

Loosen 1/2" (13mm) hex nut. Insert wire through hole and tighten nut. Takes wire sizes up to 8 gauge.

Banana Plug Connection

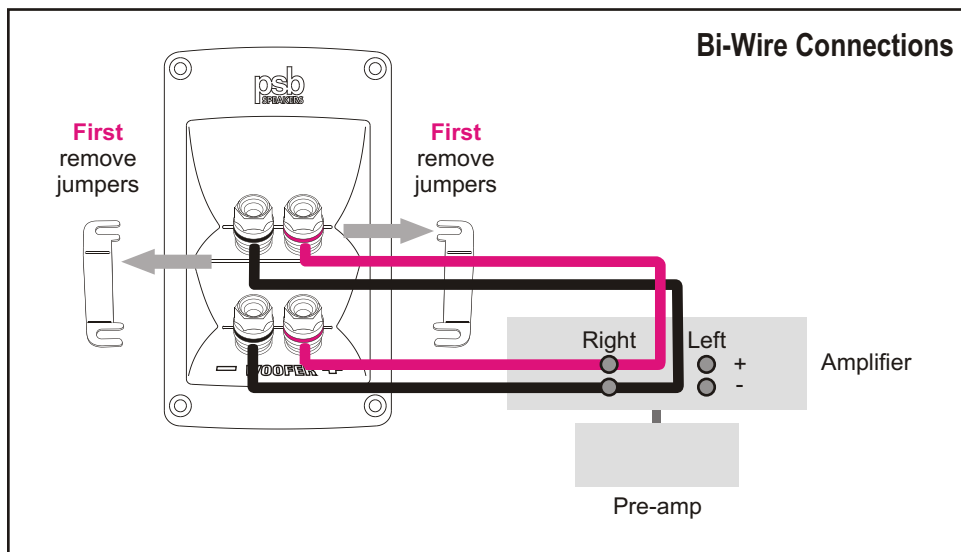
Insert banana plug into the top of the hex nut. Ensure the hex nuts are tightened.

Spade Plug Connection

Loosen hex nut and lift moveable washer to expose the top of the jumper strap. A 1/4"(6mm) or 5/16"(8mm) spade will fit on the narrower section of the post. Lower the washer and tighten the hex nut.

Bi-Wiring and Bi-Amping Options

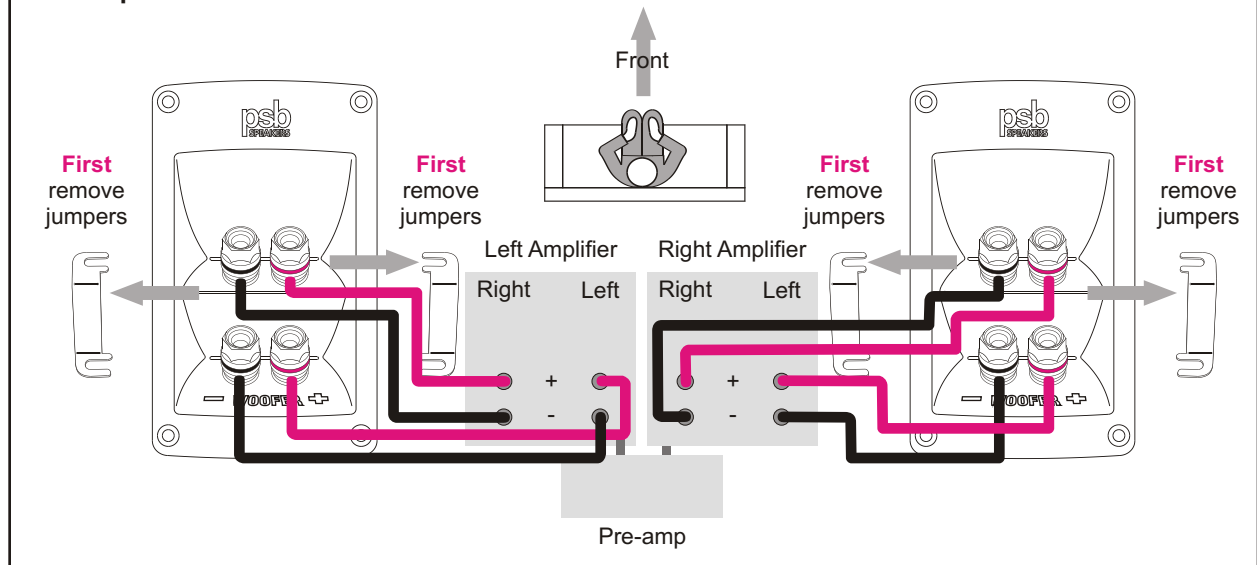
All PSB Platinum Series speakers can be bi-wired (separate cables to the separated woofers and midrange/tweeters from the same amplifier) and bi-amped (separate amplifiers). With single cable inputs, the jumper straps must be in place and both sets of terminals tightened firmly. Before bi-wiring or bi-amping, ALWAYS remove the metal jumper straps that



connect the two sets of binding posts on the speaker. Loosen 1/2" (13mm) hex nuts and lift moveable washers to remove the jumper strap.

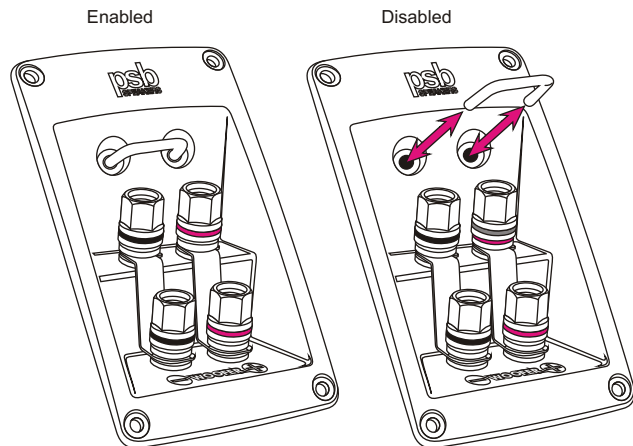
With bi-amp hookup you must use either identical amplifiers or amplifiers adjusted to have the same voltage gain. Consult your PSB dealer or our Web site for further information.

Bi-Amp Connections



Rear Tweeter – Enabled/Disabled (For T8 Tower)

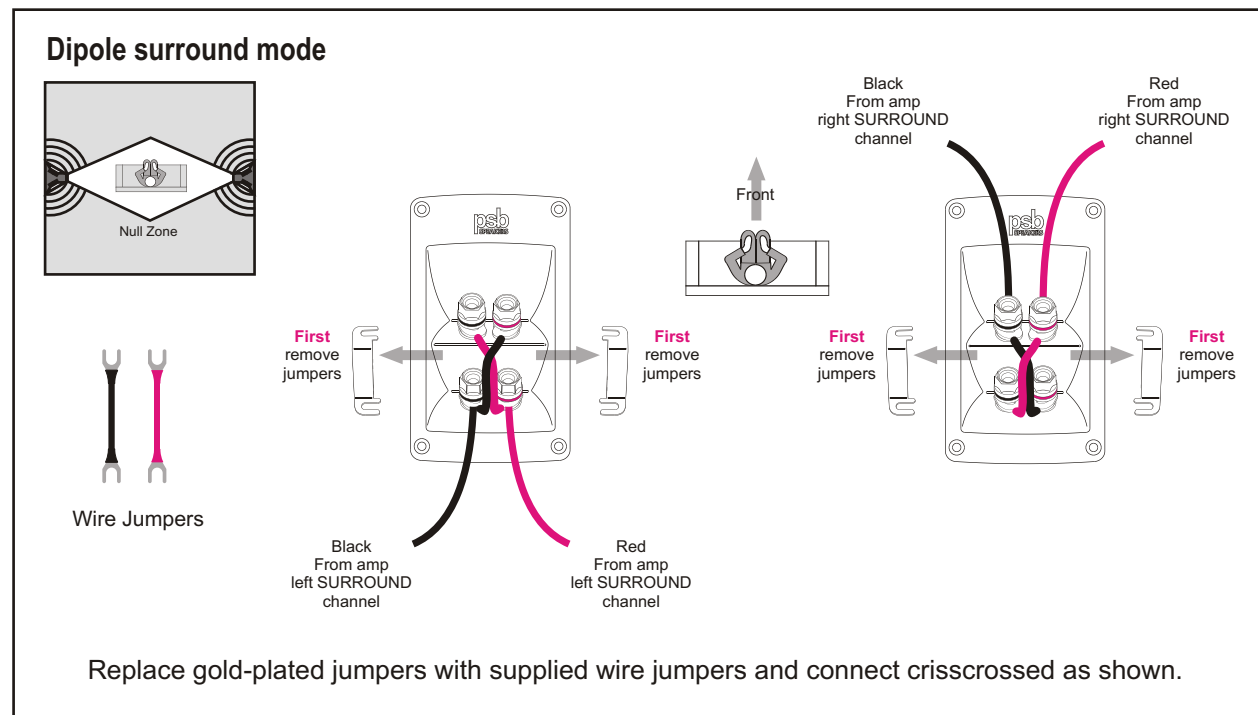
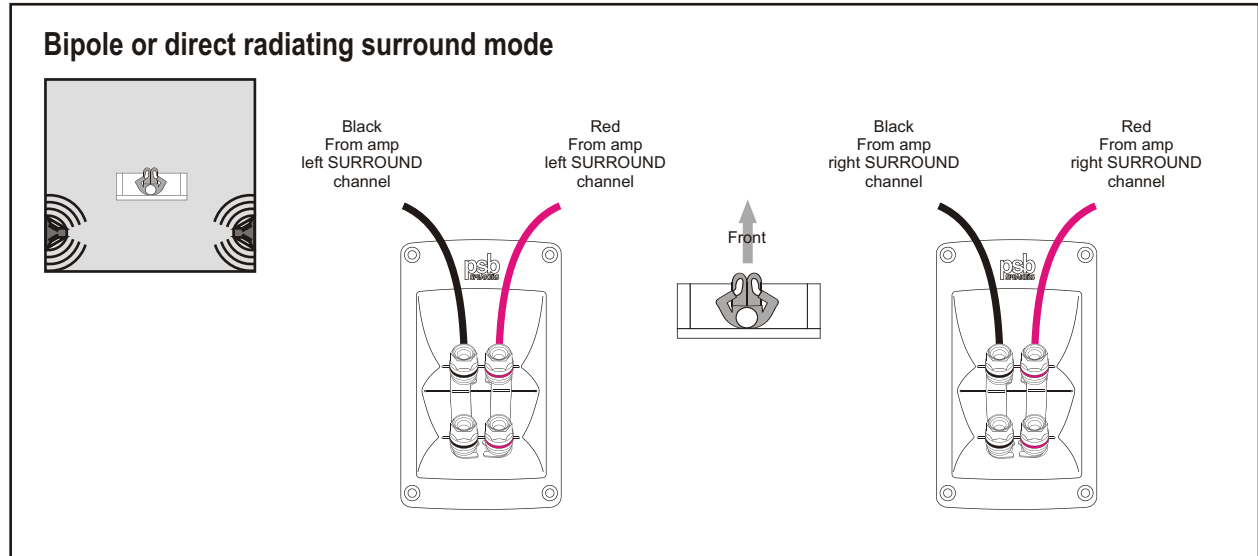
The PSB Platinum T8 Tower has a second, rear-facing tweeter that can be enabled or disabled at the user's preference. The primary purpose of the second tweeter is to provide added ambiance—more of the “air” and overall spaciousness and a sense of envelopment present in a recorded or live venue—and, in many cases, some useful added musicality of the sound of instruments. We think most listeners will prefer to leave the tweeter enabled for normal listening. But because the tweeter faces backwards and depends on the nearest wall to diffuse its sound, there may be instances in which spatial localization (imaging) of musical instruments is not as precise as when you are using the single, forward-facing tweeter. For any such case you might encounter, we would suggest disabling the tweeter to see if you prefer the single tweeter for this particular use.



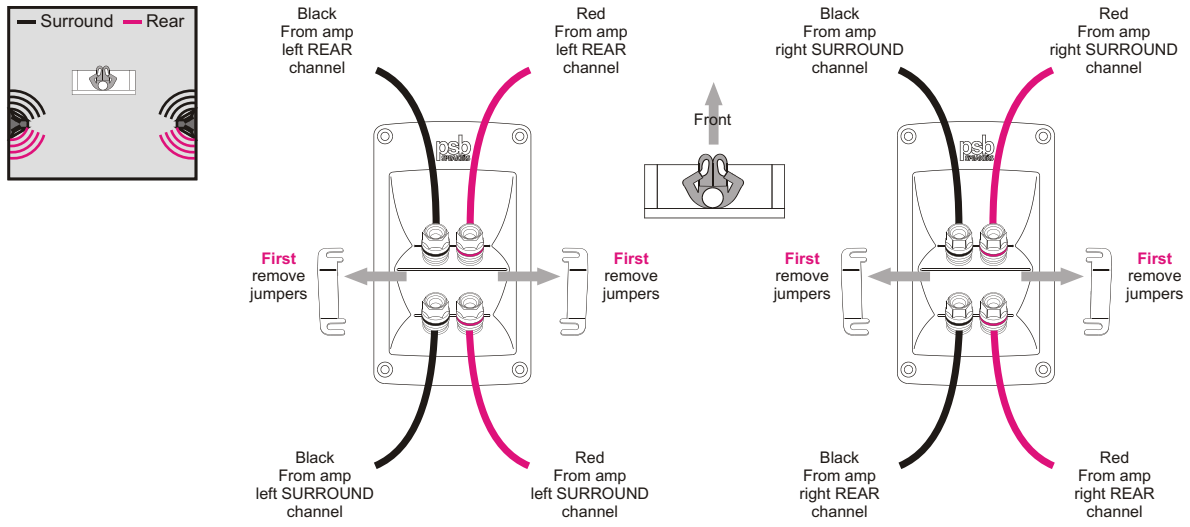
Speaker Connection Options (For S2 Surrounds)

The captioned illustrations below show the following multi-channelled configurations:

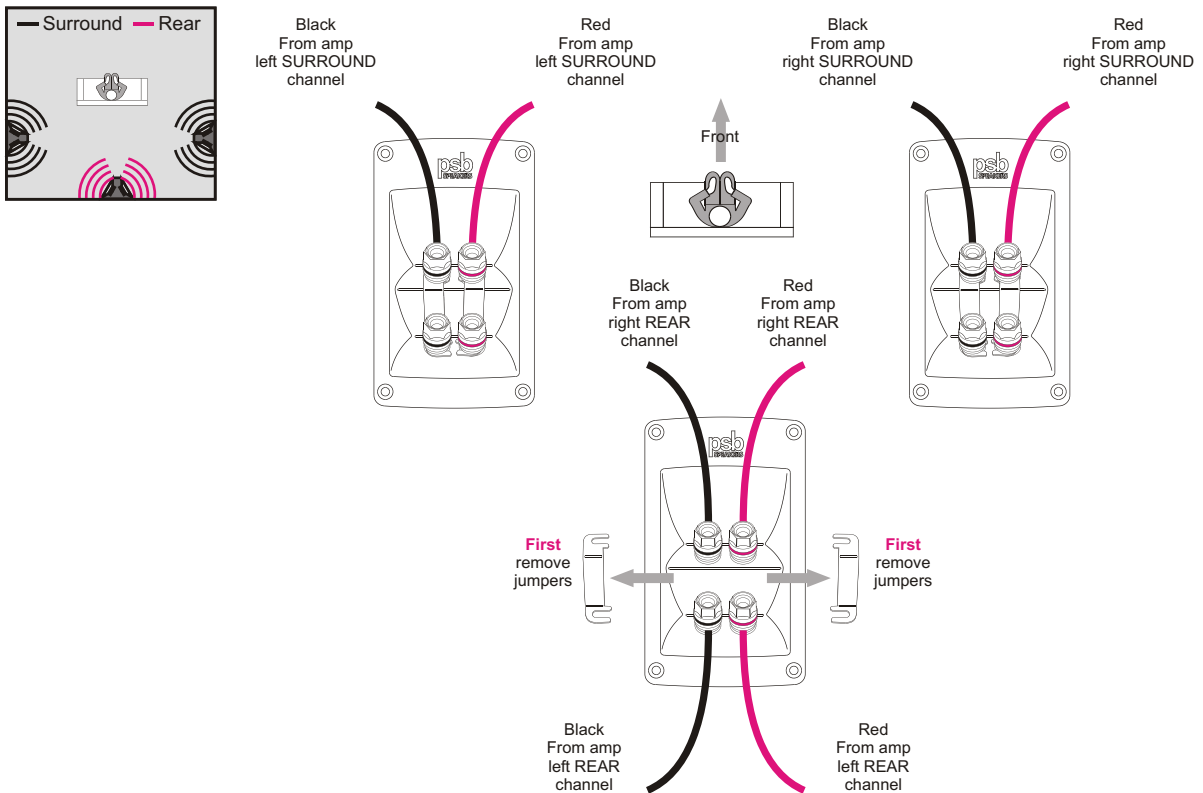
1. Bipole or direct radiating surround mode
2. Dipole surround mode
3. 6.1/7.1 system utilizing two (2) S2 surrounds
4. 6.1/7.1 system utilizing three (3) S2 surrounds
5. 6.1/7.1 system utilizing four (4) S2 surrounds



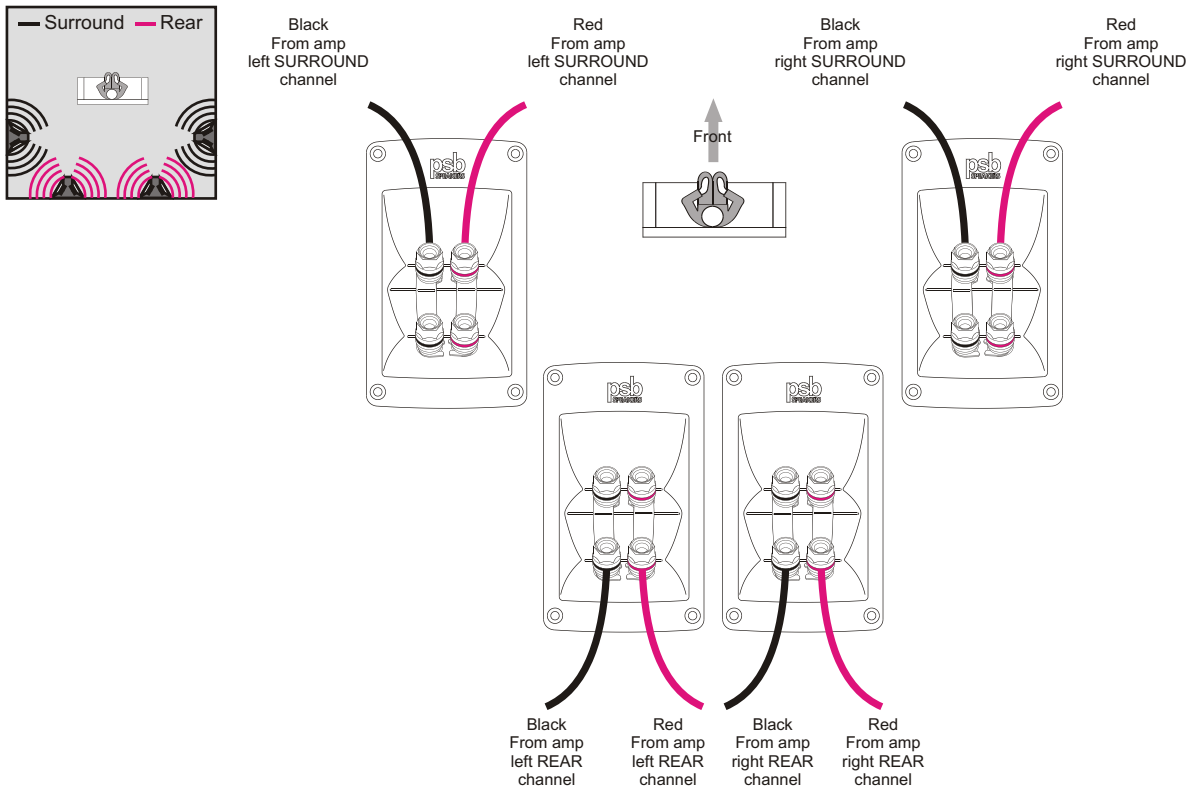
6.1/7.1 System Utilizing Two (2) S2 Surrounds



6.1/7.1 System Utilizing Three (3) S2 Surrounds



6.1/7.1 System Utilizing Four (4) S2 Surrounds



Recommended Power

We recommend amplifiers and receivers rated from a range of 50-300 watts. For playing at consistently room-filling volume, a minimum of 100 watts is usually a good idea. Be wary of driving low-powered amplifiers to their limits as under-powering can cause permanent speaker damage.

Protecting Your Investment

- A. For full, year-after-year enjoyment from your speakers, you should respect their limits. Excessive volume levels can damage even the most “bullet-proof” speakers, especially over extended time periods
- B. When listening to music or movies at very loud volume, you shouldn’t turn up bass or treble all the way or close thereto. This sends tremendously increased, disproportionate power into the speakers, and may well damage them. Some loudness compensation (“Loudness”) controls, which boost both bass and treble, can also be troublesome at high volume. They are intended only for low-volume listening
- C. Finally, you should be aware that when amplifiers and receivers are pushed to their limits to produce excessive volume levels, they are driven into “clipping” and can do severe damage—especially to tweeters. Often, the damage is done by underpowered amplifiers, which may reach their limits very soon. When such units begin to “clip” the audio waveform, they may generate high-frequency “spikes” of tremendous power. More tweeters have probably been destroyed by this phenomenon than any other. If using your speakers at loud levels, listen carefully for any sign of harsh, garbled midrange and diminishing intelligibility—and turn the volume down right away if you detect it.

NEVER TURN UP THE VOLUME ALL THE WAY TO SEE HOW LOUD YOUR SYSTEM WILL PLAY!

Cabinet Care

Cabinets have varying materials and finishes, including wood veneers and painted cast anodized aluminum parts. They should be treated as you would any fine furniture with similar finishes. Dust lightly with a soft cloth; avoiding abrasives. If necessary, wipe carefully with a cloth slightly dampened with glass cleaner to remove heavy soil.

Grilles and Ports

A lint brush does a good job of cleaning grilles. Grilles can be taken off and vacuumed if you prefer. If need be, you can use a lint brush to clean ports. Avoid touching speaker diaphragms. Particularly, pushing in the aluminum dome of the tweeter will cause permanent damage.

In Case of Problems

- A. Lower volume if a speaker begins to sound distorted or seems to be missing certain frequencies, to check first to see whether playing at somewhat lower volume seems to clear up the problem. As we noted under “Recommended Power,” it can be especially important to turn down the volume right away if you have pushed a low-powered amplifier or receiver past its comfortable limits.
- B. Isolate the problem to the electronics or the speakers and, if the speakers, to specific speakers. Interchange the speaker wire connections on your amplifier or receiver between channels, so that the left speaker is connected to the right channel, or vice versa. If the problem shifts to the other speaker, the problem is not in the speaker but in the electronics.
- C. Another component—or, very often, a cable or connection problem between components—may be at fault. If the problem stays in the same speaker, irrespective of the channel to which it’s connected—and after changing the connecting wire—the speaker itself probably needs service.
- D. See your dealer if you require service. PSB dealers are equipped to handle almost all problems. If you have moved since your purchase, the nearest authorized PSB dealer should be able to help you. You may locate your nearest PSB authorized dealer on-line at www.psbSpeakers.com/r/list.html. If the problem is not resolved, please contact us, providing the Model name, Serial Number, date of purchase, dealer name, and a full description of the problem.

We appreciate your purchase, and hope this owner’s guide helps you enjoy the exceptional satisfaction that PSB speaker systems have to offer. We wish you many years of enjoyable listening!

PSB Speakers
633 Granite Court
Pickering, Ontario L1W 3K1
CANADA
www.psbSpeakers.com
888-772-0000 (North America)
905-831-6555 (International)
Fax: 905-837-6357

